



# UNITED STATES PATENT AND TRADEMARK OFFICE

*Eoh*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,790	08/29/2001	Martin Lysejko	ASPN 1003-1	9754
22470	7590	10/17/2005	EXAMINER	
HAYNES BEFFEL & WOLFELD LLP			NGUYEN, BINH QUOC	
P O BOX 366			ART UNIT	PAPER NUMBER
HALF MOON BAY, CA 94019			2664	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/942,790	LYSEJKO ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Binh Q. Nguyen	2664

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 08/17/2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-26 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,2,4-9 and 16-26 is/are rejected.  
 7) Claim(s) 3, and 10-15 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 4-9, 17-19, 21-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Daly* (U.S. Patent No. 6,748,021) in view of *Stanwood et al* (U.S. Patent No. 6,683,866).

**Regarding to Claims 1, 21, 24, and 25:** *Daly* teaches a method and a telecommunications system for connecting to a network and for routing data messages between the network and subscriber terminals of the telecommunications system, the subscriber terminals being connectable to a central terminal of the telecommunications system via a transmission medium, the telecommunications system providing a number of communication channels arranged to utilise the transmission medium for transmission of data between the central terminal and the subscriber terminals, the telecommunications system comprising:

a transmitter within the central terminal for sending a data message destined for a particular subscriber terminal over at least one of the communication channels (*see Fig. 10 & 12, col. 8 lines 38-40*); and

a frame generator within the central terminal for generating a number of frames to represent each data block as a number of data blocks (*see Fig. 7, col.8, line 36-66*), each frame having a header portion and a data portion, the header portion being arranged to be transmitted in a fixed format chosen to facilitate reception of the header portion by each subscriber terminal (*see Fig. 7, Tx in QPSK means fixed format, col.8, line 36-66*) and being arranged to include a number of control fields for providing information about the data portion, said information comprising at least an indication of the subscriber terminal for which the corresponding data portion of the frame is destined, the data portion being arranged to be transmitted in a variable format (*see Fig. 6 & 7, Variable modulation means a variable format, and col. 8, line 36-60*) based on predetermined criteria relevant to the particular subscriber terminal to which the data portion is destined (*see Fig. 6& 7, and col.8, line 36-66*).

*Daly* does not teach said information comprising at least an indication of the subscriber terminal for which the corresponding data portion of the frame is destined. However, *Stanwood* teaches said information comprising at least an indication of the subscriber terminal for which the corresponding data portion of the frame is destined (*see col. 11, lines 18-31*). It would have been obvious to a person of ordinary skill in the art to combine *Daly* with *Stanwood* to provide identification information to the subscriber terminal. **The motivation** for this is for efficiently transporting and correctly receiving by subscriber terminal.

**Regarding claim 4:** *Daly* teaches a telecommunications system as claimed in Claim 1, wherein the variable format is defined by a number of parameters, a first parameter being a channel coding to be applied to the data in the corresponding data portion (*see Fig.5, and col.8, lines 38-44 (FEC coding means channel coding)*).

**Regarding claim 5:** *Daly* teaches a telecommunications system as claimed in Claim 4, wherein a second parameter is a modulation type to be applied to the data in the corresponding data portion (*see Fig. 5, and col.8, lines 38-44 “depending on” means a parameter*).

**Regarding claim 6:** *Daly* teaches a telecommunications system as claimed in Claim 5, wherein a third parameter is a symbol rate for the data in the corresponding data portion (*see Fig. 6, and col.6, lines 57-60 “is based on a constant symbol rate” means a third parameter is a symbol rate*).

**Regarding claim 7:** *Daly further disclosed* a telecommunications system as claimed in Claim 4, wherein the parameters defining the variable format used for the data portion are identified in one or more control fields of the corresponding header portion (*see Fig. 7, col.8 and lines 57-60, fields in frame containing control information means control field*).

**Regarding claim 8:** *Daly* teaches a telecommunications system as claimed in Claim 1, wherein the fixed format used for the header portion employs a relatively low symbol rate. (*see Fig. 6, QPSK is low symbol rate, and see Fig. 7 header is Tx in QPSK, and col.1, lines43-47*).

**Regarding claim 9:** *Daly further disclosed* a telecommunications system as claimed in Claim 1, wherein the fixed format (*QPSK also known as 4QAM*) used for the header portion employs no channel coding. (*see Fig. 4 the header is always in 4QAM ( or QPSK) so no channel coding , and Fig. 7*).

**Regarding claim 17:** *Daly* teaches a telecommunications system as claimed in Claim 1, wherein the header portion includes a code synchronisation control field (*means fields in frame containing control information*) for identifying a code synchronisation signal to be used by the recipient of the frame to control the code synchronisation of signals subsequently issued by that

recipient (*see Fig. 7, and Col.8, lines 57-60, it means information (84) stating the modulation and coding applied to the following physical payload*).

**Regarding claim 18:** *Daly* teaches a telecommunications system as claimed in Claim 1, wherein the header portion includes a field containing a predetermined training sequence used by the recipient of the frame to determine the phase of a carrier signal (*see Fig. 7, and Col.8, lines 57-60, "a field containing a predetermined training sequence" means a sync sequence (82), information (84) stating the modulation and coding applied to the following physical payload*).

**Regarding claims 19, and 26:** *Daly* teaches a telecommunications system as claimed in Claim 1, wherein the transmission medium is a radio resource facilitating wireless communications between the central terminal and the subscriber terminals (*see col.3 lines 24-38*).

**Regarding claim 22:** *Daly* teaches a computer program operable to configure a telecommunications system to perform a method as claimed in Claim 21 (*see Col.8, lines 59-60 "coding applied to the following physical payload" means a computer program*).

**Regarding claim 23:** *Daly* teaches a carrier medium comprising a computer program as claimed in claim 22. (*see col.11, lines 17-18, "inherently ...a carrier wave modulated with 4 states by coding"*).

3. **Claims 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Daly* (US Patent No. 6,748,021) in view of *Stanwood et al* (U.S. Patent No. 6,683,866) as applied to claim 1 above, and further in view of *Masters et al* (US Patent No. 6,330,278), hereinafter referred to as *Masters*.

**Regarding to Claim 2:** *Daly* in view of *Stanwood et al* disclose a method and a telecommunications system as claimed in Claim 1.

*Daly* in view of *Stanwood et al* fails to disclose wherein the predetermined criteria comprises an indication of the signal-to-noise ratio (SNR) of signals received by the destination subscriber terminal from the central terminal.

However, *Masters* explicitly disclose the predetermined criteria comprises an indication of the signal-to-noise ratio (SNR) of signals received by the destination subscriber terminal from the central terminal (*see col.5 lines 35-60, and col.7 lines 9-27*).

**It would have been obvious** to a person of ordinary skill in the art to combine *Daly* in view of *Stanwood et al* with *Masters*, so that an indication of the signal-to-noise ratio (SNR) of signals received by the destination subscriber terminal from the central terminal.

**The motivation** for this is to provide additional system modulation parameters that may be altered by system components to optimize the data transmission rate/range tradeoff for each communication.

4. **Claims 16, 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Daly* (US Patent No. 6,748,021) in view of *Stanwood et al* (U.S. Patent No. 6,683,866) as applied to claim 1 above, and further in view of *Schneider* (US Patent No. 6,570,871).

a) **Regarding to Claim 16:** *Daly* in view of *Stanwood et al* disclose a method and a telecommunications system as claimed in Claim 1.

**Daly** in view of **Stanwood et al** fails to disclose wherein the header portion includes a power control field for identifying a power control signal to be used by the recipient of the frame to control the power of signals subsequently issued by that recipient.

**However, Schneider discloses** the header portion includes a power control field (*means a power control bit*) for identifying a power control signal to be used by the recipient of the frame to control the power of signals subsequently issued by that recipient (*see col.13 lines 12-21*).

**It would have been obvious** to a person of ordinary skill in the art to combine **Daly** in view of **Stanwood** with **Schneider**, so the recipient of the frame to control the power of signals subsequently issued by that recipient would use a power control signal. **The motivation** for this is to control interference.

b) **Regarding to Claim 20:** **Daly** discloses a telecommunications system as claimed in Claim 1. **Daly** in view of **Stanwood** fails to disclose wherein the communication channels are orthogonal channels defined using CDMA.

**However, Schneider explicitly discloses** the communication channels are orthogonal channels defined using CDMA (*see Fig. 4 and col.11, lines 47-55*).

**It would have been obvious** to a person of ordinary skill in the art to combine **Daly** in view of **Stanwood** with **Schneider** to provide isolation between channels. **The motivation** for this is for reducing average transmit power, and improving the non-coherent demodulation, since the base station must demodulate the mobile transmission non-coherently.

***Allowable Subject Matter***

5. Claims 3, 10-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-2, 4-9, and 16-26 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 2664

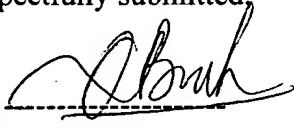
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh Q. Nguyen whose telephone number is 571-272-8563. The examiner can normally be reached on M-F: 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

By:   
Binh Q. Nguyen  
Patent Examiner  
10/04/2005



WELLINGTON CHIN  
SUPERVISORY PATENT EXAMINER